Surface Drainage - Main or Lateral

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 608

DEFINITION
A Main or Lateral drainage ditch is an open drainage ditch constructed to a designed size and grade.

PRACTICE INFORMATION
The purpose (s) of a main or lateral drainage ditch is to:

- Dispose of excess surface and subsurface water
- Intercept and control ground water levels
- Provide leaching of saline or alkali soils
- Provide a combination of these functions

Sites for this practice are suitable for agriculture and have an outlet for the drainage water by either gravity or pumping.

This practice applies to ditches for disposal of surface and subsurface drainage water collected primarily by field ditches and subsurface drains.

Additional information including design criteria and specifications are in the local NRCS Field Office Technical Guide.

The following pages list the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, and soil. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

CONSERVATION PRACTICE PHYSICAL EFFECT WORKSHEET

NOTE: *recorded in Microsoft word 6.0 - use tabs to change cells/fields*

STATE	Iowa	FIELD OFFICE		DATE	5/15/97

PRACTICE: 608 Surface Drainage - Main or Lateral	NOTES:
RESOURCE: SOIL **RESOURCE CONCERN: EROSION**	**Help Message: Click on form field for choice lists.** **Refer to Microsoft Word Users Guide (Creating a form)**
RESOURCE INDICATORS	**PHYSICAL EFFECTS**
SHEET AND RILL	insignificant
WIND	insignificant
EPHEMERAL GULLY	insignificant
CLASSIC GULLY	N/A
STREAMBANK	N/A
IRRIGATION INDUCED	insignificant
SOIL MASS MOVEMENT	N/A
ROADBANK/CONSTRUCTION	N/A
OTHER	
RESOURCE CONCERN: **SOIL CONDITION**	
SOIL TILTH	slight improvement in soil tilth
SOIL COMPACTION	slight reduction in soil compaction
SOIL CONTAMINATION	
• SALTS	N/A
• ORGANICS	N/A
• FERTILIZERS	N/A
• PESTICIDES	N/A
• OTHER	
DEPOSITION/DAMAGE	
• ONSITE	insignificant
• OFFSITE	insignficant
DEPOSITION/SAFETY	
• ONSITE	insignificant
• OFFSITE	insignificant
OTHER	
RESOURCE: **WATER** RESOURCE CONCERN: **WATER QUANTITY**	
SEEPS	moderate reduction in seepage hazard
RUNOFF/FLOODING	slight decrease in runoff/flooding
EXCESS SUBSURFACE WATER	moderate reduction in excess subsurface water
INADEQUATE OUTLETS	moderate improvement in H20 outlet concern
WATER MGT. IRRIGATION	
• SURFACE	moderate improvement in irrigation efficiency
• SPRINKLER	moderate improvement in irrigation efficiency
WATER MGT. NON-IRRIGATED	slight improvement in moisture use
RESTRICTED FLOW CAPACITY (H20 convey.)	
• ONSITE	significant improvement in onsite drainage
• OFFSITE	insignificant
RESTRICTED STORAGE	slight reduction in sedimentation of H20 storage

RESOURCE: **WATER** RESOURCE CONCERN**: WATER QUALITY**	
RESOURCE INDICATORS	**PHYSICAL EFFECTS**
GROUNDWATER CONTAMINANTS	
• PESTICIDES	slight poten reduction GWater contam./pesticides
• NUTRIENTS AND ORGANICS	slight poten. decrease/GWater contam./nutr,organ.
• SALINITY	slight poten.decrease/GWater contam./salinity
• HEAVY METALS	slight poten. decrease/GWater contam./heavy metal
• PATHOGENS	slight poten. decrease/GWater contam./pathegens
• OTHER	
SURFACE WATER CONTAMINANTS	
• PESTICIDES	slight increase in SWcontam./pesticides
• NUTRIENTS AND ORGANICS	slight increase in SWater contam./nutri.,organics
• SUSPENDED SEDIMENTS	slight increase in SWater contam./susp. sedi.
• LOW DISSOLVED OXYGEN	N/A
• SALINITY	slight increase in SWater contam./salinity
• HEAVY METALS	slight increase in SWater contam./heavy metals
• WATER TEMPERATURE	N/A
• PATHOGENS	slight increase in SWater contam./pathegens
AQUATIC HABITAT SUITABILITY	N/A
OTHER	
RESOURCE: **AIR** RESOURCE CONCERN: **AIR QUALITY**	
AIRBORNE SEDIMENT AND SMOKE PARTICLES	
• ONSITE SAFETY	N/A
• OFFSITE SAFETY	N/A
• ONSITE STRUCT. PROBLEMS	N/A
• OFFSITE STRUCT. PROBLEMS	N/A
• ONSITE HEALTH	N/A
• OFFSITE HEALTH	N/A
AIRBORNE SEDIMENT CAUSING CONVEYANCE PROBLEMS	N/A
AIRBORNE CHEMICAL DRIFT	N/A
AIRBORNE ODORS	N/A
FUNGI, MOLDS, AND POLLEN	N/A
OTHER	
RESOURCE CONCERN: **AIR CONDITION**	
AIR TEMPERATURE	N/A
AIR MOVEMENT (windbreak effect)	N/A
HUMIDITY	N/A
OTHER	

RESOURCE: **PLANT** RESOURCE CONCERN: **SUITABILITY**	
RESOURCE INDICATORS	**PHYSICAL EFFECTS**
SITE ADAPTATION	sign. improvement in plant suitability/site adapt
PLANT USE	sign. improvement in plant suit. for intended use
OTHER	
RESOURCE CONCERN: **CONDITION**	
PRODUCTIVITY	sign. improvement in plant cond./ productivity
HEALTH, VIGOR, SURVIVAL	sign. improvement in plant health,vigor, survival
OTHER	
RESOURCE CONCERN: **MANAGEMENT**	
ESTAB., GROWTH, HARVEST	sign. improvement in plant estab.,growth,harvest
NUTRIENT MANAGEMENT	moder. improvement in plant nutrient management
PESTS	moder. improvement in plant pest management
THREAT/ENDANGERED PLANTS	N/A
OTHER	
RESOURCE: **ANIMAL** RESOURCE CONCERN: **HABITAT**	
FOOD	slight degredation in animal habitat/food supply
COVER/SHELTER	slight degredation in animal habitat/cover,shelter
WATER (QUANTITY & QUALITY)	slight degredation in animal habitat/water
OTHER	
RESOURCE CONCERN: **MANAGEMENT**	
POPULATION BALANCE	slight degredation in plant mgt./ pop. balance
THREAT/ENDANGERED ANIMALS	N/A
HEALTH	slight degredation in animal mgt./ health
OTHER	
RESOURCE: **HUMAN** RESOURCE CONCERNS**: ECONOMIC CONSIDERATIONS**	
PLAN / COST EFFECTIVENESS	significantly cost effective
CLIENT FINANCIAL CONDITION	significantly cost effective
MARKETS FOR PRODUCTS	N/A
AVAILABLE LABOR	moderate decrease in labor requirement
AVAILABLE EQUIPMENT	moderate decrease in equip. needed

RESOURCE: **HUMAN** RESOURCE CONCERN: **SOCIAL CONSIDERATIONS**	
RESOURCE INDICATORS	**PHYSICAL EFFECTS**
PUBLIC HEALTH AND SAFETY	mod. improvement in public health & safety
PRIVATE/PUBLIC VALUES	mod. inprovement in private/public values
CLIENT CHARACTERISTICS	N/A
RISK TOLERANCE	insignificant risk involved
TENURE	N/A
OTHER	
RESOURCE CONCERN: **CULTURAL CONSIDERATIONS**	
ABSENCE/PRESENCE OF CULTURAL RESOURCES	situational regarding cultural resources
SIGNIFICANCE OF CULTURAL RESOURCES	situational regarding cultural resources
MITIGATION OF NEGATIVE CULTURAL RES. IMPACTS	situational regarding cultural resources
OTHER	